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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,615	09/08/2000	Douglas C. Watson	11269.20	3338

7590 12/03/2001

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EXAMINER

KIM, PETER B

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,615

Applicant(s)

WATSON ET AL.

Examiner

Peter B Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the base isolation system and the optical isolation system that are the same height of Claims 22 and 47 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

1. The disclosure is objected to because of the following informalities: On page 9, line 19, "base isolation system 42" seems to be a typo.

Appropriate correction is required.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 1-63 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1, 23, 45, 57, the structural relationship between the base assembly and the optical assembly is unclear. Page 8 of the specification discloses that first and second stages are included in the base assembly, and page 17 of the specification discloses that first stage base and the fine stage are included in the optical assembly. If the base assembly includes all of the stages then the optical assembly cannot include any portion of the stages and if the base assembly only includes a portion of the stages then it is unclear which portions are included.

The remaining claims, not specifically mentioned, are rejected for incorporating the defects from the base claim by dependency.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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5. Claims 1-15, 17, 19-37, 39, and 41-63 are rejected under 35 U.S.C. 102(a) as being anticipated by Van Engelen et al. (Van Engelen) (5,953,105).

Van Engelen discloses in Figures 2 and 10D, an exposure apparatus and method for transferring an image set movably by a stage (5) onto a device (1), the exposure apparatus comprising a base (269), a base isolation system (273) that secures the base assembly to the mounting base, an optical assembly (265), and an optical isolation system (267) that secures the optical assembly to the base assembly. Van Engelen also discloses flexible supports (273, 267), movers (31, 119), and position sensors (71, 73 75, 51, 53, 55). The base isolation system and the optical isolation system that are at approximately the same height is also taught by Van Engelen.

6. Claims 1-15, 17, 19-37, 39, and 41-63 are rejected under 35 U.S.C. 102(a) as being anticipated by Takahashi et al. (Takahashi) (6,008,885).

Takahashi discloses in Figures 1 and column 2 and 3, an exposure apparatus and method for transferring an image set movably by a stage (1) onto a device, the exposure apparatus comprising a base (7), a base isolation system (8) that secures the base assembly to the mounting base, an optical assembly (9), and an optical isolation system (11) that secures the optical assembly to the base assembly. Takahashi also discloses flexible supports, movers (4, 3), and position sensors (21, 23).

7. Claims 1-15, 17, 19-37, 39, and 41-63 are rejected under 35 U.S.C. 102(b) as being anticipated by Osanai (5,610,686).

Osanai discloses in Figure 1 and column 3-5, an exposure apparatus and method for transferring an image (2) set movably by a stage onto a device, the

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exposure apparatus comprising a base (8), a base isolation system (13) that secures the base assembly to the mounting base, an optical assembly (4), and an optical isolation system (11) that secures the optical assembly to the base assembly. Osanai also discloses flexible supports (10, 11), movers (23, 24), and position sensors (16, 33a).

8. Claims 1-15, 17, 19-37, 39, and 41-63 are rejected under 35 U.S.C. 102(e) as being anticipated by Hazelton et al. (Hazelton) (6,252,234).

Hazelton discloses in Figure 1 and columns 2-5, an exposure apparatus and method for transferring an image set (16) movably by a stage (18) onto a device (12), the exposure apparatus comprising a base (40), a base isolation system (60) that secures the base assembly to the mounting base, an optical assembly (42), and an optical isolation system (60) that secures the optical assembly to the base assembly. Hazelton also discloses flexible supports, movers, and position sensors (34, 35, 36, 37). The base isolation system and the optical isolation system that are at approximately the same height is also taught by Hazelton.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 16, 18, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Engelen et al. in view of Hayashi (6,036,162).

Van Engelen discloses the claimed invention as discussed above, however, Van engelen does not disclose an acceleration sensor. Hayashi discloses in Figure 2 and column 11, acceleration sensors located on the assembly. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the acceleration sensor to the invention of Van Engelen in order to sense the vibration.

11. Claims 16, 18, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. in view of Hayashi (6,036,162).

Takahashi discloses the claimed invention as discussed above, however, Takahashi does not disclose an acceleration sensor. Hayashi discloses in Figure 2 and column 11, acceleration sensors located on the assembly. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the acceleration sensor to the invention of Takahashi in order to sense the vibration.

12. Claims 16, 18, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osanai in view of Hayashi (6,036,162).

Osanai discloses the claimed invention as discussed above, however, Osanai does not disclose an acceleration sensor. Hayashi discloses in Figure 2 and column 11, acceleration sensors located on the assembly. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the acceleration sensor to the invention of Osanai in order to sense the vibration.

13. Claims 16, 18, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazelton et al. in view of Hayashi (6,036,162).

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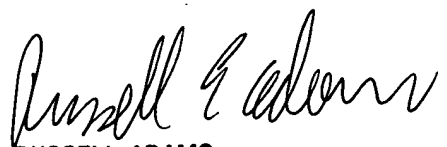
Hazelton discloses the claimed invention as discussed above, however, Hazelton does not disclose an acceleration sensor. Hayashi discloses in Figure 2 and column 11, acceleration sensors located on the assembly. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the acceleration sensor to the invention of Hazelton in order to sense the vibration.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Kim whose telephone number is (703) 305-0105. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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11/8/01


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